

Fate Report for Case # P-17-0281

Fate

Summary Statement

Fate P-17-0281

Summary

Statement: FATE:

[REDACTED]

[REDACTED]

[REDACTED]

POTW removal (%) = 90 via sorption

Time

for complete ultimate aerobic biodeg > mo

Sorption to

soils/sediments = v.strong

PBT Potential: P3B1

*CEB FATE:

Migration to ground water = negl

Overall wastewater treatment

removal is 90% via sorption.

Sorption to sludge is strong based on
high molecular volume.

Air Stripping (Volatilization to air) is
negligible based on high molecular volume.

Removal by biodegradation
in wastewater treatment is negligible based on high molecular volume.

The aerobic aquatic biodegradation half-life is greater than months
based on high molecular volume.

The anaerobic aquatic biodegradation
half-life is greater than months based on high molecular volume.

Sorption to soil and sediment is very strong based on high molecular
volume.

Migration to groundwater is negligible based on high
molecular volume.

PMN Material:

High Persistence (P3) is based
on the anaerobic biodegradation half-life and high molecular volume.

Low Bioaccumulation potential (B1) is based on high molecular volume.

Fate Placeholder,
Assessor: Legacy
SMILES:

Physical Properties

Property	Measured/Calculated Value	EPI
Molecular Form:		
Molecular Wt.:		
% < 500:		
% < 1000:		

Property	Measured Value	Method	Estimated Value	Method	EPI
Melting Point:					
Boiling Point:				Polymer	
BP			@		@
Pressure:					
Vapor Pressure:				Polymer	
Water Solubility:				Polymer	
Log P:					
Log Kow:					
Log Koc:					
Log BCF:					
Henry's Law:					

pH:
pH
Comment:

Fate Analysis

Hydrolysis (t1/2, da):	Volatilization (t1/2)	Volatilization (t1/2)
	- River (hr):	- Lake (da):
Atm Ox Potential (t1/2)OH (hr):	Atm Ox Potential (t1/2)O3 (hr):	Atm Ox Potential (t1/2) Total (hr):
MITI Linear:	MITI NonLinear:	
Biodeg Linear:	Biodeg NonLinear:	
Biodeg Survey ult:	Biodeg Survey Prim:	
STP (% removal) Total:	STP (% removal) Biodeg:	
STP (% removal) Ads:	STP (% removal) Air:	

Rationales

Removal in Wastewater Treatment:
Atmospheric Oxidation:
Hydrolysis:
Photolysis:
Aerobic Biodegradation:
Anaerobic Biodegradation:
Sorption to Soil and Sediment:
Migration to Groundwater:
Persistence - Air:
Persistence - Water:
Volatilization from Water:
Soil:
Sediment:
Other:

Standard:
Bioaccumulation:

PBT Ratings

Persistence	Bioaccumulation	Toxicity	PBT Comments
3	1	1	

Exposure-Based Testing

Exposure-Based Testing:

Fate Ratings

Removal in WWT/POTW

(Overall):

Removal in 90 WWT/POTW (Overall):
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Condition	Rating Values	Rating Description				Comment
		1	2	3	4	
WWT/POTW Sorption:	3	Low	Moderate	Strong	V. Strong	
WWT/POTW Stripping:	4	Extensive	Moderate	Low	Negligible	
Biodegradation Removal:	4	Unknown	High	Moderate	Negligible	
Biodegradation Destruction:		Unknown	Complete	Partial	—	
Aerobic Biodeg Ult:	4	<= Days	Weeks	Months	> Months	
Aerobic Biodeg Prim:		<= Days	Weeks	Months	> Months	
Anaerobic Biodeg Ult:	4	<= Days	Weeks	Months	> Months	
Anaerobic Biodeg Prim:		<= Days	Weeks	Months	> Months	
		<= Minutes	Hours	Days	>= Months	

Condition	Rating Values	Rating Description				Comment
		1	2	3	4	
Hydrolysis (t1/2 at pH 7,25C) A:						
Hydrolysis (t1/2 at pH 7,25C) B:		<= Minutes	Hours	Days	>= Months	
Sorption to Soils/Sediments:	1	V. Strong	Strong	Moderate	Low	
Migration to Ground Water:	1	Negligible	Slow	Moderate	Rapid	
Photolysis A, Direct:		Negligible	Slow	Moderate	Rapid	
Photolysis B, Indirect:		Negligible	Slow	Moderate	Rapid	
Atmospheric Ox A, OH:		Negligible	Slow	Moderate	Rapid	
Atmospheric Ox B, O3:		Negligible	Slow	Moderate	Rapid	

Bio

Comments:

Bio Comments:

Fate

Comments:

<p>Fate Overall wastewater</p> <p>Comments: treatment removal is 90% via sorption.</p> <p>Sorption to sludge is strong based on high molecular volume.</p> <p>Air Stripping (Volatilization to air) is negligible based on high molecular volume.</p> <p>Removal by biodegradation in wastewater treatment is negligible based on high molecular volume.</p> <p>The aerobic aquatic biodegradation half-life is greater than months based on high molecular volume.</p> <p>The anaerobic aquatic biodegradation half-life is greater than months based on high molecular volume.</p> <p>Sorption to soil and sediment is very strong based on high molecular volume.</p> <p>Migration to groundwater is negligible</p>
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based on high molecular volume.

PMN Material:

High Persistence

(P3) is based on the anaerobic biodegradation half-life and high molecular volume.

Low Bioaccumulation potential (B1) is based on high molecular volume.

Comments/Telephone

Log

Artifact	Update/Upload Time
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